

DENVER MUSEUM OF NATURE AND SCIENCE
VENUS WINDS PROJECT
MINUTES OF MEETING

Date/Time/Location: 10 July 6:00 PM Exploration Studio 106

ATTENDING

Bullock	Doubek	Harter	Knutson	Lindsay	McGouldrick
Romero	Royer	Tarr			

Guests: None

The meeting opened at 6:00 PM at Exploration Studio 106 in the Morgridge Wing. Those **attending** are listed above.

OLD BUSINESS

New Venus Winds researcher recruitment from current DMNS volunteers Art

The volunteer solicitation has been released on the DMNS website. See

<http://www.dmns.org/join/volunteering/venus-winds-project/>

Wind velocity computations for 16 Sep 2007 image pair Mark

Continued from last meeting. Extended for additional results.

Venus Winds wiki improvements Mark

Postponed until we enlist more researchers

Mathematics of the rectangular coordinates transformation Mark, Art

Postponed

Investigate some images on JPL web sites Mark

Postponed

FITS headers Mark

Postponed

NEW BUSINESS

Wind velocity computations for 12 July 2004 images Mark

Mark will introduce and discuss nine new images from 12 July 2004. He will provide a new spreadsheet for the velocity computations.

BlueJeans: Online meeting app Michael

Michael has set up the BlueJeans app so that a Moderator is not required. We are encouraged to set up test meetings as needed and gain experience with the app.

Goals for the Venus Winds Project Mark

Most of the meeting was spent discussing and clarifying the goals of the Venus Winds Project for current and new researchers:

1. Determine zonal wind speeds vs. latitude over each period of 5-10 days
2. Produce movies for the SOS for each period. The movie frames would be interpolated between each days' images
3. A journal article describing the analysis performed in item 1. The article would require these major sections: a) Tabulation of wind speeds ; b) Error analysis; c) Literature review; d) Methods employed; e) Discussion of citizen science involved.

Refinement of image processing steps:

1. Convert FITS file to .TIFF format
2. Slit removal
3. Remove bad pixels (Photoshop/Gimp/microObservatory or custom program)
4. Flat field correction (free tools)
5. Consistent contrast adjustment of images
6. Center (register) images
7. Subtract scattered sunlight (Brackett-gamma images)
8. Conversion to rectangular coordinate system
9. Make movies/determine wind speeds

IMPORTANT: The next meeting on July 24 will be in Admin 1 – Stegosaurus .

Submitted by Arthur C. Tarr, Venus Winds Project Coordinator